INITIAL REVIEW EXPOSURE REPORT			PORT	P-09-0291		Page 1 of: 3/		
Assesso	r:	L. Libelo		Search ()Y		Focus Date: 4/	23/2009	
SAT	Health:	Н				SAT Date:	04/10/09	
SAT	Eco:	М	T3			SAT Rep:		
Submitte	er:			Max. PV (kg/yr)		Manu Impoi		
Use:		polymeriza	ation	1(\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\		<u> </u>		
					grille of grillen high			
					1	100	' , , - - ,	
Chemica	I Name:		· · · · · · · · · · · · · · · · · · ·					
Trade Na	ame:)	Nand	0:	CAS:	}	
Structure	e Comments:							
Structure	e:					F 7		
				\$ 0 0				

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EXPOSURE	KEPOK					F-09-	0291		
	ANAL	OG D	ATA FO	RM					
	Page	3							
		RATI	NG	PHO	то	RATING	Р	age 2	
RADATION	Ultimate	4		DIR	ECT		%	0	
	Primary			ÍNDIF	RECT				
			···						
			_				-	1	
								4	
В.				0	3		Rem	4	
							Dest		
							<u> </u>		
ORPTION TO SOIL & SEDIMENT							Ult	4	
mments:							Prim		
JND WATE	R	4			Р	ersist/Bio	acc	3/2	
	301B(Mod	d Stur					FOR	 М	
						Log	Kow		
3	A. B. SEDIMEN	A. B. SEDIMENT JND WATER COD111(Hydrolysis): t OECD301B(Mod	Page 3 RATI RADATION Ultimate 4 Primary A. B. SEDIMENT 4 CD111(Hydrolysis): t1/2(pl OECD301B(Mod Stur	Page 3 RATING RADATION Ultimate 4 Primary A. B. SEDIMENT 4 CCD111(Hydrolysis): t1/2(pH4,7,9 a OECD301B(Mod Sturm CO2 of Control of Co2	RATING DIR GRADATION Ultimate 4 DIR INDIF A. O B. O SEDIMENT 4 CCD111(Hydrolysis): t1/2(pH4,7,9 at 50C): OECD301B(Mod Sturm CO2 ev): 0%	Page 3 RATING PHOTO DIRECT INDIRECT AT OX OH OB ASSEDIMENT ASSEDIMENT ASSEDIMENT ASSEDIMENT BSSEDIMENT ASSEDIMENT ASSEDIMENT ASSEDIMENT BSSEDIMENT ASSEDIMENT BSSEDIMENT ASSEDIMENT BSSEDIMENT ASSEDIMENT BSSEDIMENT ASSEDIMENT BSSEDIMENT BSSEDIMENT ASSEDIMENT BSSEDIMENT BSSE	Page 3	Page 3	

INITIAL REVIEW EX	INITIAL REVIEW EXPOSURE REPORT				P-09-0	291		Page 3 of: 3/				
STATE NEAT:								E	EPI E	STIM	IATION	s
MF.G:			mport	_								
FORMULA:			< 500	4			<u> </u>			_		
MOL WT:		%	< 1000	4								
Submitted		ICB-C	RSS	_	Metho	od/R	ef					
MP (C)					Ex	φ.						
BP (C) @			2) 760 to	rr							@ 760	torr
@ P (torr)												
VP (torr) 0.00					Ex	φ.					5	
S-H2O (g/L)			ispersib	le	Us	se	-					
Log Kow												
оН, рКа					Log	Koc	;			2.8	0	
Light Absorption (nm) <	>290				Log BCF	E	3CF		0.50		3.16	
Solvent:				7	H (atm r	m3/	mol)				3	
HYDRO t(1/2) @pH7, 25	9 d	а	Persister	nce	/ Bioa	ccum	ulatio	on	3/3	\neg		
Volatilization (H2O) t(1/2)			River	Γ	1000.0	00	hr	Lake	•	1	00.00	da
AOP t(1/2) (hr) OF	i		О3		,			Tota	al			
MITI Linear Prob:	-0.091	Nonlinear P	Prob:	0.0	00							
BIODEG Linear Prob:	-2.26	Nonlinear P	rob:	0.0	00 Survey I	Ult:	RE	CAL	Surve	ey Pri	im:	МО
STP (% Removal) Tot		1.89	Biod		0.09 A	∖ds	1	.80	Α	ir:	0.00	
			,									
REMOVAL IN WWT/P	OTW											
							CA	TEG	ORY			
			RATIN	IG	1_		2		3	}	4	
Sorpti	on				low) r	nodera	ate	stro	ng	v.stro	ng
Strippi	ng				extensive	e r	nodera	ate	lo	w	neglig	ible
Di- I- I- I- I- I	R	emoval		7	unknown		high	1	mode	erate	neglig	ble
Biodegradation	De	struction		7	unknown		comple	ete	par	tial		\neg
Comments:												\dashv
							•					_ \
AEROBIC BIODEGRADA	TION	Ultimate			<= days	T	week	s T	mon	ths	> mon	ths
		Primary		┪	<= days		weeks	s	mon	ths	> mon	ths
Comments:	•	OECD	301C(M	IIT	T): 0%/28d	-	•					

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INITIAL REVIE	EW EXPO	SURE	REPOR	Γ	P-09-02	91	Page 🌠 of: 37		
						CATI	EGORY	•	
				RATING	1	2	3	4	
ANAEROBIC BIOD	DEGRADA	ATION	Ultimate		<= days	weeks	months	months	
	•		Primary		<= days	weeks	months	> months	
Comments:									
HY	DRO (da)								
HYDROLYSIS	338	A.			<= mins	hours	days	=> months	
(t(1/2) @ pH 7,	25 °C)	B.			<= mins	hours	days	=> months	
Comments:									
		·							
SORPTION TO SC	OIL & SED	IMEN	T		v.strong	strong	moderate	low	
Comments:									
								*	
VIGRATION TO G	ROUND \	NATE	R		negl	slow	moderate	rapid	
Comments:						•			
VOLATILIZATION	Rivers	(hr)	1000		negl	slow	moderate	rapid	
(w/o sediment)	Lakes	(da)	1000		negl	slow	moderate	rapid	
Comments:		-					·		
	•								
PHOTOLYSIS		A. Di	irect		negl	slow	moderate	rapid	
		B. In	direct		negl	slow	moderate	rapid	
Comments:									
		AOP t	(1/2) hr						
ATMOSPHERIC	A. OH				negl	slow	moderate	rapid	
OXIDATION	B. O3		·		negl	slow	moderate	rapid	
Comments:									
									

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INITIAL REVIEW EXPOSURE REPORT (IREXR)

Chemical ID: P090291

Reviewer: Flessner

Results Table: Dose, Concentration, and Days Exceeded Results Summary

Exposure Scenario 1	Sometime (Steen		W	ater	William		Landfill	Stac	k Air	Fugiti	ve Air
Release activity(ies) ² ;	Drinkin	g Water	Fish In	gestion	7Q10 ⁴	PDM					
exposure calculation(s) ³	ADR	LADD	ADR -	LADD	CC=1000 550	Days Exceeded	:-LADD	ADR	LADD	ADR	LADD
	mg/kg/day	mg/kg/day	mg/kg/day	mg/kg/day	μg/l	# Days	mg/kg/day	mg/kg/day	mg/kg/day	mg/kg/day	mg/kg/day
max ADR											
: PDM2											
: max LADD		1.7									
max ADR, max Acute Eco, PDM, max LADD	 5										
max ADR, max Acute Eco, PDM, max LADD	—										

Exposure scenario titles consist of release activity followed by exposure calculation abbreviation.

Multiple release activities are combined in one exposure scenario if their releases occur at same location.

Remarks:

Fate test recommendations?: (default is NA)

² Release activities are from engineering report's Manufacturing (Mfg), Processing (Proc) and Use release activity labels.

³ Exposure calculations are Acute Dose Rate (ADR), Lifetime Average Daily Dose (LADD), and Probabilistic Dilution Model (PDM). There may be one, two, or all three exposure calculations per exposure scenario. CC is the aquatic concentration of concern.

⁴ This column displays concentration values for the 7Q10 streamflow, which is defined as the average streamflow of the 7 consecutive days of lowest flow within a 10 year period.

Chemical ID: P090291		Assessor: Flessner		
	ENV	IRONMENTAL RELEASES	5 Approximately 100 Approximat	8 .
Scenario#:1		Number of Release Sites		
Release Activity:	max ADR			
Release Description:	WATER	LANDFILL	STACK	FUGITIVE
	*	Non-sludge/Sludge	%	
Total Releases:				
	(kg/yr)	(kg/yr)	(kg/yr)	(kg/yr)
		Non-sludge/Sludge		
Release Days/yr:				
Per Site Release:		(1)		
	(kg/site/day)	(kg/site/day)	(kg/site/day)	(kg/site/day)

Remarks:

CHEMICAL ID: P090291

SITE-SPEC		ND AQUATIC EXP KES, BAYS, ESTUA			ELEASES:		
SCENARIO #: 1	RE	LEASE ACTIVITY:	Y: max ADR				
FACILITY NAME	:						
FACILITY LOCAT	TION:	}					
RECEIVING WAT	ER NAME:						
REACH NUMBER	.: 💮	FACILITY ON REA	ACH:	DISCHARGE TY	PE: Direct		
NPDES PERMIT #	:	EXPOSED POPUL	ATION: Adult				
WWT REMOVAL (%)	RELEASE DAYS	PLANT FLOW (MLD)	PRETREAT RELEASE (kg/site/day)	POST-TREAT RELEASE (kg/site/day)	BCF (L/kg)		
_							

AQUATIC EXPOSURE ESTIMATES								
MIXING ZONE	DILUTION FACTOR	WATER CONCENTRATION (ug/L)						
ACUTE SCENARIO	1.00							
CHRONIC SCENARIO	1.00							

	FISH INGEST	TION EXPOSURE	ESTIMATES					
		ASSUMPTIONS						
Exposure Units	Results	ED (years)	AT (years)	BW , (kg)	IR (g/day)			
1112	*	Cancer	. 5		+ 4			
LADD _{pot} (mg/kg/day)	7	30.00	75.00	71.80	6.00			
LADC _{pot} (mg/kg)	3	30.00	75.00	NA	NA			
Acute								
ADR _{pot} (mg/kg/day)		NA	1 day	71.80	129.00			

Lakes Comments:

Chemical ID: P090291

INHALATION EXPOSURE ESTIMATES (POST-TREATMENT)

SCENARIO#: 1

RELEASE ACTIVITY

max ADR

RELEASE DESCRIPTION:

METHOD OF CALCULATION: Screen3

EXPOSED POPULATION: Adult

Number of Sites:	
Per Site Fugitive Release:	kg/site/day
Fugitive Release Days per Year:	days
% Removal via Fugitive Release:	%
Total Fugitive Release:	kg/yr
Max Annual Average Air Concentration (Fugitive):	$\mu g/m^3$
Max 24 Hour Average Air Concentration(Fugitive):	$\mu g/m^3$
Per Site Stack Release:	kg/site/day
Stack Release Days per Year:	days
% Removal via Stack Release:	%
Total Stack Release:	kg/yr
Max Annual Average Air Concentration (Stack):	$\mu g/m^3$
Max 24 Hour Average Air Concentration (Stack):	$\mu g/m^3$

P &			ASSUMPTIONS						
Exposure Units	Results (Stack)	Results (Fugitive)	ED (years)	AT (years)	BW (kg)	Inh. Rate (m³/hr)			
Cancer									
LADD _{pot} (mg/kg/day)			30.00	75.00	71.80	0.55			
LADC _{pot} (mg/m ³)			30.00	75.00	NA	NA			
Acute									
ADR _{pot} (mg/kg/đay)			NA	1 day	71.80	0.55			

Inhalation Comments:

Stack Parameter Data	ı		Fugitive Parameter Data	ı	
Stack Height	10.00	m	Release Height:	3.00	m
Inside Stack Diameter:	0.10	m	Length of Release Opening:	10.00	m
Stack Gas Exit Velocity:	0.10	m/sec	Width of Release Opening:	10.00	m
Stack Gas Temperature:	293.00	K			

Meteorological and Terrain Information:

Surrounding Land Use:	Rural	
Terrain Height:	0.00	m
Distance to Residence of Interest:	100.00	m
Meteorological Class:	Full	
Stability Class:	NA	
Wind Speed:	NA	

Downwash Information:

Facility Length:	NA	m
Facility Width:	NA	m
Facility Height:	NA	m

Remarks:

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: P090291		Assessor:					
of gar p. p. c.	ENVIRONMENTAL RELEASES						
Scenario#:2	Number of Release Sites						
Release Activity:	PDM1						
Release Description:	WATER	LANDFILL Non-sludge/Sludge	STACK	FUGITIVE			
Total Releases:							
,	(kg/yr)	(kg/yr)	(kg/yr)	(kg/yr)			
		Non-sludge/Sludge					
Release Days/yr:							
Per Site Release:							
	(kg/site/day)	(kg/site/day)	(kg/site/day)	(kg/site/day)			

CHEMICAL ID: P090291

SITE-SPE		ND AQUATIC EXP KES, BAYS, ESTUA		RFACE WATER RI EANS	ELEASES:
SCENARIO #: 2	RE	LEASE ACTIVITY:	PDM:	1	
FACILITY NAME					
FACILITY LOCAT	TION:	·			
RECEIVING WAT	ER NAME:				
REACH NUMBER	.:	FACILITY ON REA	ACH	DISCHARGE TY	PE: Direct
NPDES PERMIT #	:	EXPOSED POPUL	ATION: Adult		
				′	
WWT REMOVAL (%)	RELEASE DAYS	PLANT FLOW (MLD)	PRETREAT RELEASE (kg/site/day)	POST-TREAT RELEASE (kg/site/day)	BCF (L/kg)

	AQUATIC EXPOSURE ESTIMA	TES
MIXING ZONE	DILUTION FACTOR	WATER CONCENTRATION (ug/L)
ACUTE SCENARIO	1.00	
CHRONIC SCENARIO	1.00	

FISH INGESTION EXPOSURE ESTIMATES								
	A STATE OF THE STA	ASSUMPTIONS						
Exposure Units	Results	ED	AT	BW	IR			
		(years)	(years)	(kg)	(g/day)			
* A A A A A A A A A A A A A A A A A A A		Cancer						
LADD _{pot} (mg/kg/day)		30.00	75.00	71.80	6.00			
LADC _{pot} (mg/kg)		30.00	75.00	NA	NA			
		Acute						
ADR _{pot} (mg/kg/day)		NA	l đay	71.80	129.00			
Lakes Comments:								

Chemical ID: P090291		Assessor:		
a 1/3 8:	Town E	NVIRONMENTAL RELEASES	* ***	an iii
Scenario#:3		Number of Release Sites:		
Release Activity:	PDM2			
Release Description:	WATER	LANDFILL	STACK	FUGITIVE
		Non-sludge/Sludge	,	
Total Releases:)))
	(kg/yr)	(kg/yr)	(kg/yr)	(kg/yr)
		Non-sludge/Sludge		
Release Days/yr:				
Per Site Release:		(1)		
	(kg/site/day)	(kg/site/day)	(kg/site/day)	(kg/site/day)

Remarks:

CHEMICAL ID: P090291

SITE-SPE	CIFIC HUMA			TIC EXP				WATER RE	LEAS	ES:
SCENARIO #: 3		REL	EASE AC	CTIVITY:		PDM	2			
FACILITY NAME	:									
FACILITY LOCAT	TION:									
RECEIVING WATER NAME:										
REACH NUMBER: FACILITY ON REACH: DISCHARGE TYPE: Direct										
NPDES PERMIT EXPOSED POPULATION: Adult										
WWT REMOVAL (%)	RELEAS DAYS	B		r flow LD)	REI	FREAT EASE ite/day)	RE	Γ-TREAT LEASE site/day)		BCF (L/kg)
				-		٥.				5
			-		·					
		F	AQUATIC	EXPOSU	JRE ES	TIMATE	S			
MIXING	ZONE		D	LUTION	FACT(OR	WAT	ER CONCEN	ITRAT	ION (ug/L)
ACUTE SO	. 110 100 1011111111111111111			1.0						
CHRONIC S	CENARIO			1.0	0		<u>L</u>			
	W									
		FISH	INGEST	ION EXP	OSURI					
				<u></u>		A	SSUMI	TIONS		<u></u>
Exposure Unit	s	Resu	ılts	ED		Α٦	r l	BW		IR
*				(year		(yea	rs)	(kg)		(g/day)
	ALA-ARTERISTANIA			Cano						
DOC 1 5 Co. 1977			71.80		6.00					
LADC _{pot} (mg/k	g)			30.0		75.0	00	NA		NA
				Acu		·				444
ADR _{pot} (mg/kg/d	lay)			NA.	١	1 da	<u> </u>	71.80		129.00
Lakes Comments:										

Remarks:

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: P090291	Assessor:							
\$200 31 To St.	i ENV	RONMENTAL RELEASES	S Programme of the state of the	. 62 Y.				
Scenario#:4	Number of Release Sites:							
Release Activity:	max LADD							
Release Description:	WATER	LANDFILL Non-sludge/Sludge	STACK	FUGITIVE				
Total Releases:			3					
•	(kg/yr)	(kg/yr)	(kg/yr)	(kg/yr)				
		Non-sludge/Sludge						
Release Days/yr:)						
Per Site Release:)						
	(kg/site/day)	(kg/site/day)	(kg/site/day)	(kg/site/day)				

CHEMICAL ID: P090291

				LEASES:
REI	LEASE ACTIVITY:	max I	ADD	
ION:	, 1			
ER NAME:				
3	FACILITY ON REA	ACH:	DISCHARGE TYP	E: Direct
	EXPOSED POPUL	ATION: Adult		
RELEASE DAYS	PLANT FLOW (MLD)	PRETREAT RELEASE (kg/site/day)	POST-TREAT RELEASE (kg/site/day)	BCF (L/kg)
	ION: ER NAME: RELEASE	LAKES, BAYS, ESTUA RELEASE ACTIVITY: ION: ER NAME: EXPOSED POPUL RELEASE PLANT FLOW	LAKES, BAYS, ESTUARIES, AND OCH RELEASE ACTIVITY: max I MAYS FACILITY ON REACH: EXPOSED POPULATION: Adult PRETREAT RELEASE PLANT FLOW RELEASE PLANT FLOW RELEASE PLANT FLOW RELEASE PLANT FLOW RELEASE	FACILITY ON REACH: BY FACILITY ON REACH: EXPOSED POPULATION: Adult RELEASE PLANT FLOW RELEASE PLANT FLOW RELEASE PLANT FLOW RELEASE RELEASE

	AQUATIC EXPOSURE ESTIMA	TES
MIXING ZONE	DILUTION FACTOR	WATER CONCENTRATION (ug/L)
ACUTE SCENARIO	1.00	
CHRONIC SCENARIO	1.00	

FISH INGESTION EXPOSURE ESTIMATES								
		38	ASSUMPTIONS					
Exposure Units	Results	ED (years)	AT (years)	BW (kg)	IR (g/day)			
		Cancer						
LADD _{pot} (mg/kg/day)		30.00	75.00	71.80	6.00			
LADC _{pot} (mg/kg)		30.00	75.00	NA	NA			
AA		Acute	,		- C. (1. (1. (1. (1. (1. (1. (1. (1. (1. (1			
ADR _{pot} (mg/kg/day)								
Lakes Comments:								

Chemical ID: P090291

DRINKING WATER EXPOSURE ESTIMATES FROM LANDFILL RELEASES

SCENARIO#: 4

ACTIVITY:

: max LADD

RELEASE DESCRIPTION:

EXPOSED POPULATION: Adult

NUMBER OF SITES	NON-SLUDGE LANDFILL RELEASE AND DAYS OF RELEASE (kg/site/day)/(days)	LANDFILLED SLUDGE ¹ AND DAYS OF RELEASE (kg/site/day)/(days)	MIGRATION DESCRIPTOR ²	ADSORPTION TO WASTEWATER SLUDGE (%)	DRINKING WATER TREATMENT (%)

Landfilled sludge equals the fraction adsorbed to wastewater treatment sludge times the surface water pre-treatment release.

Migration Descriptor	Log Koc	Groundwater Concentration (GWC) (mg/L per kg release)
Negligible	no migration	None
Negligible to slow	> 4.5	3.21E-6
Slow	<4.5 to 3.5	2.67E-5
Moderate	<3.5 to 2.5	5.95E-5
Rapid	<2.5	7.55E-5

			ASSUMI	PTIONS	ž ₃
Exposure Units	Results	ED (years)	AT (years)	BW (kg)	IR (L/day)
۸	9: 7	Cancer		å b	×
LADD _{pot} (mg/kg/day)	1	30.00	75.00	71.80	1.40
LADC _{pot} (mg/L)	4	30.00	75.00	NA	NA

REMARKS:

Chemical ID: P090291

INHALATION EXPOSURE ESTIMATES (POST-TREATMENT)

SCENARIO#: 4

RELEASE ACTIVITY

max LADD

RELEASE DESCRIPTION:

METHOD OF CALCULATION: Screen3

EXPOSED POPULATION: Adult

Number of Sites:

Per Site Fugitive Release:

Fugitive Release Days per Year:

% Removal via Fugitive Release:

Total Fugitive Release:

Max Annual Average Air Concentration

(Fugitive):

Max 24 Hour Average Air

Concentration(Fugitive):

Per Site Stack Release:

Stack Release Days per Year:

% Removal via Stack Release:

Total Stack Release:

Inhalation Comments:

Max Annual Average Air Concentration (Stack):

Max 24 Hour Average Air Concentration (Stack):

kg/site/day

days

%

/0

kg/yr

 $\mu g/m^3$

μg/m³

kg/site/day

days

| %

kg/yr

 $\mu g/m^3$

μg/m³

D	D 44	ASSUMPTIONS				
(Stack)	(Fugitive)	ED (years)	AT (years)	BW (kg)	Inh. Rate (m³/hr)	
.P	Cancer		√a à.E		ь 29 з 3	
	4.49E-03	30.00	75.00	71.80	0.55	
	2,44E-02	30.00	75.00	NA	NA	
-	Acute	ec - 9	2011	k %8:	2 7 3 %	
	Results (Stack)	(Stack) (Fugitive) Cancer 4.49E-03 2.44E-02	(Stack) (Fugitive) (Fugitive) (Years) Cancer 4.49E-03 30.00 2.44E-02 30.00	Results (Stack) Results (Fugitive) ED (years) AT (years) Cancer 4.49E-03 30.00 75.00 2.44E-02 30.00 75.00	Results (Stack) Results (Fugitive) ED (years) AT (years) BW (kg) Cancer 4.49E-03 30.00 75.00 71.80 2.44E-02 30.00 75.00 NA	

Stack Parameter Data	ı		Fugitive Parameter Data				
Stack Height	10.00	m	Release Height:	3.00	m		
Inside Stack Diameter:	0.10	m	Length of Release Opening:	10.00	m		
Stack Gas Exit Velocity:	0.10	m/sec	Width of Release Opening:	10.00	m		
Stack Gas Temperature:	293.00	K					

Meteorological and Terrain Information:

Surrounding Land Use:	Rural	
Terrain Height:	0.00	m
Distance to Residence of Interest:	100.00	m
Meteorological Class:	Full	
Stability Class:	NA	
Wind Speed:	NA	

Downwash Information:

Facility Length:	NA	m
Facility Width:	NA	m
Facility Height:	NA	m

Remarks:

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: P090291	Assessor:									
	ENV	IRONMENTAL RELEASES								
Scenario#:5 Number of Release Sites:										
Release Activity:	max ADR, PDM, max LADD									
Release Description:	WATER	LANDFILL Non-sludge/Sludge	STACK Mal concer 55 RESERVE AUTO	FUGITIVE						
Total Releases:				2						
_	(kg/yr)	(kg/yr)	(kg/yr)	(kg/yr)						
		Non-sludge/Sludge								
Release Days/yr:										
Per Site Release:				5						
	(kg/site/day)	(kg/site/day)	(kg/sitĕ/day)	(kg/site/day)						

Chemical ID: P090291

SIC-CODE BASED HUMAN AND AQUATIC EXPOSURES TO SURFACE WATER RELEASES Number of Sites: SCENARIO #: 5 RELEASE ACTIVITY max ADR, PDM, max LADD SIC-CODE DESCRIPTION: SIC-CODE (S) EXPOSED POPULATION: Adult WWT PRETREATMENT **POSTTREATMENT** DWT RELEASE RELEASE REMOVAL RELEASE **BCF** (%) (kg/site/day) (kg/site/day) (%) DAYS (L/kg)

AQUATIC EXPOSURE ESTIMATES - SURFACE WATER									
PLANT TYPE	% ILE FACILITY) "			
4		Harmonic Mean	30Q5	7Q10	1Q10	Harmonic Mean	30Q5	7Q10	1Q10
ALL	50	12			1 1 1 1 1 1 1 1 1 1				
ALL	10								

Exposure Units	Drinking	Drinking Water Results			Fish Ingestion Results			Fish Ingestion Units
	50%	i	10%		50%	j	10%	7
512.				Cancer		×		- 1
LADD _{pot}				mg/kg/day				mg/kg/day
LADC _{pot}	A.			mg/L				mg/kg
The state of the s				Acute				A 100 E
ADR _{pot}				mg/kg/day				mg/kg/day

Chemical ID: P090291

550.00

	SICC	ODE EXPOSURI	ES TO SURFACE	E WATER RELEA	SES	. Y.
SCENARIO#:	5	RELEAS	E ACTIVITY:	max ADR, PI	DM, max LADD	
SIC CODE DES	SCRIPTION:					
ASSOCIATED	SIC CODES:					
* K	N.E.	sic	CODE RESUL	TS	⁰ N	* **
COC (µg/L)	Percent of Year COC Exceeded	Number of Days COC Exceeded	Release days/year	Loading (kg/site/day)	Waste Water Treatment (%)	High/Avg Analysis
1000.00						

Chemical ID: P090291

DRINKING WATER EXPOSURE ESTIMATES FROM LANDFILL RELEASES

SCENARIO #: 5

ACTIVITY: Use 1: max ADR, PDM, max LADD

RELEASE DESCRIPTION:

EXPOSED POPULATION: Adult

NUMBER OF SITES	NON-SLUDGE LANDFILL RELEASE AND DAYS OF RELEASE (kg/site/day)/(days)	LANDFILLED SLUDGE ¹ AND DAYS OF RELEASE (kg/site/day)/(days)	MIGRATION DESCRIPTOR ²	ADSORPTION TO WASTEWATER, SLUDGE (%)	DRINKING WATER TREATMENT (%)

Landfilled sludge equals the fraction adsorbed to wastewater treatment sludge times the surface water pre-treatment release.

2	Migration Descriptor	Log Koc	Groundwater Concentration (GWC) (mg/L per kg release)
	Negligible	no migration	None
	Negligible to slow	> 4.5	3.21E-6
	Slow	<4.5 to 3.5	2.67E-5
	Moderate	<3.5 to 2.5	5.95E-5
	Rapid	<2.5	7.55E-5

		ь	ASSUM	PTIONS	- t-
Exposure Units	Results	ED (years)			IR (L/day)
3		Cancer	r	***************************************	1000 C 112 100 C 1
LADD _{pot} (mg/kg/day)		30.00	75.00	71.80	1.40
LADC _{pot} (mg/L)	50 50	30.00	75.00	NA	NA

REMARKS:

Chemical ID: P090291

INHALATION EXPOSURE ESTIMATES (POST-TREATMENT)

SCENARIO #: 5

RELEASE ACTIVITY ADR, PDM, max LADD

RELEASE DESCRIPTION:

METHOD OF CALCULATION: Screen3

EXPOSED POPULATION: Adult

Number of Sites:

Per Site Fugitive Release:

Fugitive Release Days per Year:

% Removal via Fugitive Release:

Total Fugitive Release:

Max Annual Average Air Concentration

(Fugitive):

Max 24 Hour Average Air

Concentration(Fugitive):

Per Site Stack Release:

Stack Release Days per Year:

% Removal via Stack Release:

Total Stack Release:

Max Annual Average Air Concentration (Stack):

Max 24 Hour Average Air Concentration (Stack):

kg/site/day

days

%

kg/yr

 $\mu g/m^3$

 $\mu g/m^3$

kg/site/day

days

kg/yr

μg/m³

 $\mu g/m^3$

¥		D 11		ASSUMPTIONS		2		
Exposure Units	Results (Stack)	Results (Fugitive)	ED (years)	AT (years)	BW (kg)	Inh, Rate (m³/hr)		
Cancer								
LADD _{pot} (mg/kg/day)			30.00	75.00	71.80	0.55		
LADC _{pot} (mg/m ³)			30.00	75.00	NA	NA		
Acute								
ADR _{pot} (mg/kg/day)			NA	1 day	71.80	0.55		

Inhalation Comments:

Stack Parameter Data	1		Fugitive Parameter Data	ì	
Stack Height	10.00	m	Release Height:	3.00	m
Inside Stack Diameter:	0.10	m	Length of Release Opening:	10.00	m
Stack Gas Exit Velocity:	0.10	m/sec	Width of Release Opening:	10.00	m
Stack Gas Temperature:	293.00	K			

Meteorological and Terrain Information:

Surrounding Land Use:	Rural	
Terrain Height:	0.00	m
Distance to Residence of Interest:	100.00	m
Meteorological Class:	Full	
Stability Class:	NA	
Wind Speed:	NA	

Downwash Information:

Facility Length:	NA	m
Facility Width:	NA	m
Facility Height:	NA	m

Chemical ID: P090291		Assessor:		
	ENV	VIRONMENTAL RELEASES		
Scenario#:6		Number of Release Sites		
Release Activity:	max ADR, PDM	I, max LADD		
Release Description:	WATER	LANDFILL Non-sludge/Sludge	STACK 9 8 21 14 2 120 15 25 27 170 15 27	FUGITIVE
Total Releases:	;		1	
	(kg/yr)	(kg/yr)	(kg/yr)	(kg/yr)
		Non-sludge/Sludge		
Release Days/yr:				,
Per Site Release:				
	(kg/site/day)	(kg/site/day)	(kg/site/day)	(kg/site/day)

Remarks:

Chemical ID: P090291

SIC-CODE BASED HUMAN AND AQUATIC EXPOSURES TO SURFACE WATER RELEASES SCENARIO #: 6 Number of Sites: RELEASE ACTIVITY max ADR, PDM, max LADD SIC-CODE DESCRIPTION: SIC-CODE (S): EXPOSED POPULATION: Adult WWT PRETREATMENT POSTTREATMENT DWT RELEASE REMOVAL RELEASE RELEASE BCF (%) (%) (kg/site/day) (kg/site/day) DAYS (L/kg)

i 19 44	AQUATIC EXPOSURE ESTIMATES - SURFACE WATER										
PLANT TYPE	% ILE FACILITY		TREAM FI	LOW (MLD) ,	~ ,	STREAM (CONC. (µg/l			
		Harmonic Mean	30Q5	7Q10	1Q10	Harmonic Mean	30Q5	7Q10	1Q10		
ALL	50										
ALL	10										

Exposure Units	Osure Units Drinking Water Results		Drinking Water Units	1		Fish Ingestion Units	
	50%	i	10%		50%	10%	
<i>s</i> .				Cancer	- 1 1)	,	,
LADD _{pot}				mg/kg/day			mg/kg/day
LADC _{pot}				mg/L			mg/kg
\$ 4.				Acute		,	y F: 4
ADR _{pot}				mg/kg/day			mg/kg/day

SIC Code Comments:

Chemical ID: P090291

* SIC	CODE EXPOSURES TO SURFACE WATER RELEASES	8 ² , A.
CENARIO #: 6	RELEASE ACTIVITY: max ADR, PDM, max LA	DD
IC CODE DESCRIPTION:		

ASSOCIATED SIC CO	DES:
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SIC CODE RESULTS									
COC (µg/L)	Percent of Year COC Exceeded	Number of Days COC Exceeded	Release days/year	Loading (kg/site/day)	Waste Water Treatment (%)	High/Avg Analysis			
1000.00		1							
550.00									

Chemical ID: P090291

DRINKING WATER EXPOSURE ESTIMATES FROM LANDFILL RELEASES

SCENARIO #: 6

ACTIVITY:

max ADR, PDM, max LADD

RELEASE DESCRIPTION:

EXPOSED POPULATION: Adult

NUMBER OF SITES	NON-SLUDGE LANDFILL RELEASE AND DAYS OF RELEASE (kg/site/day)/(days)	LANDFILLED SLUDGE ¹ AND DAYS OF RELEASE (kg/site/day)/(days)	MIGRATION DESCRIPTOR ²	ADSORPTION TO WASTEWATER SLUDGE (%)	DRINKING WATER TREATMENT (%)

Landfilled sludge equals the fraction adsorbed to wastewater treatment sludge times the surface water pre-treatment release.

2	Migration Descriptor	Log Koc	Groundwater Concentration (GWC) (mg/L per kg release)
	Negligible	no migration	None
	Negligible to slow	> 4.5	3.21E-6
	Slow	<4.5 to 3.5	2.67E-5
	Moderate	<3.5 to 2.5	5.95E-5
	Rapid	<2.5	7.55E-5

		ASSUMPTIONS				
Exposure Units	Results	ED (years)	AT (years)	BW (kg)	IR (L/day)	
Cancer						
LADD _{pot} (mg/kg/day)		30.00	75.00	71.80	1.40	
LADC _{pot} (mg/L)		30.00	75.00	NA	NA	

REMARKS:

Chemical ID: P090291

INHALATION EXPOSURE ESTIMATES (POST-TREATMENT)

SCENARIO #: 6 RELEASE ACTIVITY max ADR, PDM, max LADD RELEASE DESCRIPTION: METHOD OF CALCULATION: Screen3 EXPOSED POPULATION: Adult Number of Sites: Per Site Fugitive Release: kg/site/day Fugitive Release Days per Year: days % Removal via Fugitive Release: % Total Fugitive Release: kg/yr Max Annual Average Air Concentration $\mu g/m^3$ (Fugitive):

Max 24 Hour Average Air
Concentration(Fugitive): μg/m³

Per Site Stack Release: kg/site/day

Stack Release Days per Year: days

% Removal via Stack Release:

Total Stack Release: kg/yr

Max Annual Average Air Concentration (Stack): μg/m³

Max 24 Hour Average Air Concentration (Stack): μg/m³

18	Results (Stack)		ASSUMPTIONS			
Exposure Units		Results (Fugitive)	ED (years)	AT (years)	BW (kg)	Inh. Rate (m³/hr)
Cancer						
LADD _{pot} (mg/kg/day)			30.00	75.00	71.80	0.55
LADC _{pot} (mg/m ³)			30.00	75.00	NA	NA
Acute						
ADR _{pot} (mg/kg/day)	7		NA	1 day	71.80	0.55

Inhalation Comments:

Facility Length:

Facility Width:

Facility Height:

Stack Parameter Data	1	Fugitive Paramet	er Data				
Stack Height	10.00	m	Release Height:	N/A			
Inside Stack Diameter:	0.10	m	Length of Release Opening:	N/A			
Stack Gas Exit Velocity:	0.10	m/sec	Width of Release Opening:	N/A			
Stack Gas Temperature:	293.00	K					
Meteorological and Terrain Information:							
Surrounding Land Use:			Rural				
Terrain Height:			0.00 m				
Distance to Residence of Inter	rest:	100.00 m					
Meteorological Class:			Full				
Stability Class:			NA				
Wind Speed:			NA				
Downwash Information:							

NA m

NA m

NA m

LEGEND FOR NEW CHEMICALS EXPOSURE REPORT

This new chemicals exposure report was prepared by the Exposure Assessment Branch (EAB) of the Economics, Exposure and Technology Division, Office of Pollution Prevention and Toxics, USEPA.

The goals of these reports are to calculate conservative (protective) estimates of exposure endpoints for consumers, the general population, and the environment.

For each exposure scenario to industrial releases, the following three endpoints are calculated:

- (1) maximum possible acute concentrations and doses
- (2) maximum possible chronic concentrations and doses
- (3) for water releases \geq 20 days, the probability of exceedence of the aquatic concentration of concern These endpoints are identified by abbreviations on the Release Activity line, e.g., (1) max ADR, (2) max LADD, (3) max PDM. Depending on the release inputs, these endpoints may be calculated and presented on the same page or different pages. That is, a release activity ID of mfg; max ADR, max PDM, max LADD indicates that all the exposure endpoints were calculated from common manufacturing release values; conversely, a release activity ID of mfg &proc; max ADR indicates that only the maximum acute exposure values were calculated for manufacturing and processing releases that occurred at the same site.

For each consumer product use exposure scenario, whether exposure is to the user directly or to the general population/environment, the maximum exposure values are calculated and presented together.

In addition to the exposure values above, EPA policy directs that exposure and release values be compared to criteria threshold values for Exposure-based and PBT Exposure-based cases.

Exposure-based (YX) cases (those with \geq 100,000 kg/yr production volume) Criteria are exceeded under the following conditions:

Presence in consumer product with likely exposure

- ≥ 3E-3 mg/kg/d exposure via air, fish ingestion or drinking water
- \geq 10,000 kg/yr release to environment (post-treatment)
- \geq 1,000 kg/yr release to water (post-treatment)

Persistent, Bioaccumulative, Toxic (PBT) chemicals of P2B2 rating or higher and production volume ≥ 20,000 kg/yr Criteria are exceeded as for YX cases, with the following differences:

- ≥ 2,000 kg/yr release to environment (post-treatment)
- \geq 200 kg/yr release to water (post-treatment)

Bolding rules in the Report: Values for endpoints above that are also health or eco concerns are bolded.